



Revision Number: 001.1

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	63/37 C502 3C 0.56MM 0.5KG AM (0.022)	IDH number:	386851
Product type:	Solder Wire	Item number:	MM00975
Company address:	Henkel Electronic Materials LLC 14000 Jamboree Road Irvine, CA 92606	Region:	United States
		Contact information:	Telephone: 1.888.9.HENKEL (1.888.943.6535) MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state:	Solid	HEALTH:	*3
Color:	Gray	FLAMMABILITY:	1
Odor:	Sweet	PHYSICAL HAZARD:	0
		Personal Protection:	See MSDS Section 8
DANGER:	MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. HARMFUL IF SWALLOWED, ABSORBED THROUGH SKIN OR INHALED. POSSIBLE CANCER HAZARD.		

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects

Inhalation: Fumes and/or dust produced by this product may be hazardous in case of ingestion or inhalation. Rosin thermal decomposition product (as formaldehyde) is classified by NIOSH as a potential occupational carcinogen. Lead is a cumulative poison and continuous exposure to small amounts over time can raise the body's content to toxic levels. Fumes may be irritating and may cause an allergic respiratory reaction. Excessive inhalation of fumes from many metals can produce an acute reaction known as "metal fume fever". Symptoms consist of chills and fever (very similar to and easily confused with flu symptoms) which come on a few hours after large exposures. Excessive exposure to tin fumes or dust may cause Stannosis, a chronic respiratory disease resulting in reduced lung capacity and benign tumors.

Skin contact: May cause skin irritation. Harmful if absorbed through skin.

Eye contact: Contact with eyes can cause eye irritation. Fumes released during thermal processing may cause eye irritation.

Ingestion: Not expected under normal conditions of use. May be toxic if swallowed. Lead is a cumulative poison and continuous exposure to small amounts over time can raise the body's content to toxic levels.

Existing conditions aggravated by exposure: Repeated or prolonged exposure to lead and its compounds may produce general health deterioration by an accumulation in one or more human organs.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Tin	7440-31-5	60 - 100
Lead	7439-92-1	30 - 60
Colophony hydrogenated	65997-06-0	1 - 5
Benzene, (1,2-dibromoethyl)-	93-52-7	0 - 0.1
4-(2-Chloroethyl)morpholinium chloride	3647-69-6	0 - 0.1
Ethanamine, N,N-diethyl-, hydrochloride	554-68-7	0 - 0.1

4. FIRST AID MEASURES

Inhalation:	If exposed to excessive levels remove to fresh air. If symptoms develop and persist, get medical attention.
Skin contact:	Wash affected area immediately with soap and water. If symptoms develop and persist, get medical attention.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
Ingestion:	DO NOT induce vomiting unless directed to do so by medical personnel. Seek medical advice.

5. FIRE FIGHTING MEASURES

Flash point:	Does not flash.
Autoignition temperature:	Not applicable
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Extinguishing media:	Carbon dioxide, foam, powder Fine water spray
Special firefighting procedures:	Wear self-contained breathing apparatus.
Unusual fire or explosion hazards:	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.
Hazardous combustion products:	High temperatures may produce heavy metal dust, fumes or vapours. Oxides of carbon. Metal oxide fumes. Formaldehyde.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not let product enter drains.
Clean-up methods:	Scrape up spilled material and place in a closed container for disposal.

7. HANDLING AND STORAGE

Handling:	Always be careful around molten material. When using do not eat, drink or smoke. Do not wear contact lenses. Wash hands before breaks and immediately after handling the product.
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Storage:

Keep cool in accordance with information on label and in Technical Data Sheets.

For information on product shelf life contact Henkel Canada Customer Service at (905) 814-6511.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Tin	2 mg/m ³ TWA	2 mg/m ³ TWA (as Sn)	None	None
Lead	0.05 mg/m ³ TWA (as Pb)	29 CFR 1910.1025 0.05 mg/m ³ TWA 0.03 mg/m ³ OSHA ACT	None	None
Colophony hydrogenated	None	None	None	None
Benzene, (1,2-dibromoethyl)-	None	None	None	None
4-(2-Chloroethyl)morpholinium chloride	None	None	None	None
Ethanamine, N,N-diethyl-, hydrochloride	None	None	None	None

Engineering controls:

Use local exhaust ventilation if the potential for airborne exposure exists.

Respiratory protection:

Use a NIOSH approved respirator if ventilation is inadequate.

Eye/face protection:

Safety goggles or safety glasses with side shields.

Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid
Color:	Gray
Odor:	Sweet
Odor threshold:	Not available.
pH:	Not applicable
Vapor pressure:	Negligible vapor pressure at ambient temperatures.
Boiling point/range:	Not determined
Melting point/ range:	183.0 °C (361.4 °F) Solder alloy
Specific gravity:	8.4000
Vapor density:	Not applicable
Flash point:	Does not flash.
Flammable/Explosive limits - lower:	Not applicable
Flammable/Explosive limits - upper:	Not applicable
Autoignition temperature:	Not applicable
Evaporation rate:	Not applicable
Solubility in water:	Insoluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	Zero

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Metal oxide fumes. Formaldehyde Oxides of carbon.
Incompatible materials:	Acids. Bases. Oxidizing agents.
Conditions to avoid:	Stable under recommended storage conditions. Avoid contact with acids and oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Tin	No	No	No
Lead	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	No
Colophony hydrogenated	No	No	No
Benzene, (1,2-dibromoethyl)-	No	No	No
4-(2-Chloroethyl)morpholinium chloride	No	No	No
Ethanamine, N,N-diethyl-, hydrochloride	No	No	No

Hazardous components	Health Effects/Target Organs
Tin	Gastrointestinal, Irritant, Kidney, Liver, Lung, Nervous System
Lead	Behavioral, Blood, Developmental, Eyes, Gastrointestinal, Kidney, Liver, Muscle, Nervous System, Reproductive, Skin, Some evidence of carcinogenicity, Thyroid
Colophony hydrogenated	No Records
Benzene, (1,2-dibromoethyl)-	No Target Organs
4-(2-Chloroethyl)morpholinium chloride	No Target Organs
Ethanamine, N,N-diethyl-, hydrochloride	Allergen, Blood, Corrosive, Eyes, Heart, Irritant, Kidney, Liver, Nervous System, Respiratory

12. ECOLOGICAL INFORMATION

Ecological information:

No specific studies have been conducted by Henkel on the ecotoxicity or environmental fate of this material; however, commonly available data on the material indicate that uncontrolled releases to soil, ground water, or surface waters could entail acute and/or chronic ecological effects, depending on the quantity and concentration of such releases. Releases of volatile components to the atmosphere are not believed to entail significant ecological consequences provided such releases are within the exposure levels set forth in this document. Accordingly, all appropriate measures should be taken to avoid uncontrolled releases to the environment, and any spills or other uncontrolled releases which may occur should be contained and cleaned up immediately in accordance with Section 6.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: D008. Lead.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

Water Transportation (IMO/MDG)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12(b) Export Notification:	None above reporting de minimus
CERCLA/SARA Section 302 EHS:	None above reporting de minimus
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
CERCLA/SARA 313:	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Lead (CAS# 7439-92-1).
California Proposition 65:	This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.
WHMIS hazard class:	D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

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